

REMARKS

Claims 1-11 are all the claims pending in the application.

Reconsideration and review of the claims on the merits are respectfully requested.

Formal Matters

Applicant appreciates that, on the Office Action Summary sheet, the Examiner acknowledged Applicant's claim for foreign priority and receipt of a certified copy of the priority document.

Applicant also appreciates that the Examiner accepts the drawings filed on December 14, 2001.

Specification

The Examiner objects to the disclosure by stating that the specification is replete with grammatical errors and should be reviewed carefully. In addition, the Examiner states that the reference to claim numbers in the specification is allegedly improper since the substance and/or number of the claims can change during prosecution of the application.

Applicant responds as follows.

Applicant traverses the Examiner's objection to the specification on the basis that the numbered paragraphs at pages 5-6 of the specification are a permissible way to create a list of preferred embodiments while not intended to correlate with claim numbers. Furthermore, Applicant points out that the language in the specification does not cite the language of the claims verbatim.

AMENDMENT UNDER 37 C.F.R. § 1.111

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However, Applicant makes amendments to the specification to correct obvious misspellings and for editorial clarity only, without limiting the scope of the specification thereof. Such amendments are shown in the Amendments to the Specification.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the objection to the specification.

Claim Rejections - 35 USC § 103

Claims 1-5, 8 and 10 have been rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Applicant's admitted prior art in view of Hell et al (US 6,507,032).

Claims 6, 9, and 11 have been rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Applicant's admitted prior art in view of Hell et al as applied to claims 1-5, 8, and 10 above, and further in view of Bourdinaud et al (US 5,103,099).

The Examiner states that the device and method as claimed is substantially disclosed by Applicant's admitted prior art, but lack the end of the crystals being convex to better focus the light. The Examiner states that Hell et al teaches using convex shapes to focus the light to a phosphor panel. Therefore, the Examiner asserts that it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the ends of the crystals of Applicant's admitted prior art convex as taught by Hell et al to better focus the light in an image detection system.

Applicant respectfully traverse the rejections.

In the detailed reasoning, the Examiner states that the device and method as claimed is substantially disclosed by Applicant's admitted prior art, but lack the end of the crystals being convex to better focus the light.

The above-cited Examiner's understanding is generally correct. The present invention resides in a radiation image storage panel comprising a support sheet and a phosphor layer formed on a surface of the support sheet by vapor accumulating method, wherein the phosphor layer comprises prismatic crystals of phosphor aligned in the same direction, and each of the crystals has a convex surface at one end. A typical structure of the radiation image storage panel of the invention is illustrated schematically in Figures 4 and 5. The aligned prismatic crystals of phosphor in Applicant's invention should be formed by vapor-accumulating method as defined in the claims.

In contrast, the phosphor layer disclosed in the cited Hell can be any one of a coated phosphor layer in which phosphor particles are dispersed in a binder, as is described in col. 3, lines 28-50 and a vapor-deposited phosphor layer, as is described in col. 3, lines 51-58. In Hell, the focusing layer (8) which comprises a multiplicity of adjacent microlenses (9) forms an outer surface of the panel (see Hell's Abstract). The focusing layer made of plastic is applied, for example, by placing it on the phosphor layer (see col. 3, lines 59-63). Please note that the coated phosphor layer itself has no predetermined pixels, and generally the pixels are defined by the size of beam spot and position of the applied laser beams. Accordingly, as for the coated phosphor layer, the pixels are defined by the placed focusing lenses in Hell's storage panel. This structure is irrelevant to the present invention. Please note that the objects of Hell's invention reside in the

reduction of the dimensions of the reading device, and the increase of emitted light collection efficiency, as described in col. 2, lines 16-28.

As for the vapor-deposited phosphor layer, Applicant would like to point out that it is almost impossible to correctly position each of the focusing lenses on each of the prismatic phosphor crystals deposited on a substrate, because the deposited prismatic phosphor crystals have different sizes and are distributed at random on the support. Thus, it is apparent that each of the focusing lenses of Hell's invention cannot be correctly placed on each of the prismatic phosphor crystals. In this case, although the emitted light collection efficiency increases, the sharpness of the reproduced radiation image apparently lowers.

In contrast, the prismatic phosphor crystals of the present invention as such have convex ends which can give a reproduced radiation image with high sensitivity but without lowering the sharpness.

For the above-described reasons, the focusing lenses placed on the phosphor layer in Hell cannot be comparable to the convex ends provided to the prismatic phosphor crystals of our invention. Accordingly, the rejection under 35 USC § 103 is unwarranted as Hell does not render obvious the present invention.

Claims 2-11 are dependent directly or indirectly on claim 1. Accordingly, these dependent claims are also patentable for the same reasons given above and free from the rejection under 35 USC § 103.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a).

Allowable Subject Matter

Applicant appreciates that Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable by the Examiner if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

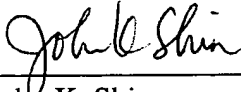
Respectfully submitted,

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

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CUSTOMER NUMBER



John K. Shin
Registration No. 48,409

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